ASSIGNMENT 2

Artificial Intelligence

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# Glossary

AI – Artificial Intelligence

NPC(s)- Non-playable character(s)

# Introduction

This document will discuss how emotional decision making can be implemented into games through AI, as well as analyse the current methods that programmers are using to create more engaging and immersive NPCs. In addition to this, this document provides a detailed solution showing emotional decision making using a behaviour tree.

# Literature Review

Why emotional behaviour in AI?

Emotions play a vital role in human decision making, (science ref?) and as Ai become more and more incorporated into gaming (stats?), it becomes more important to create more realistic AI for games (ref). In genres where NPCs play a bigger role in world building such as RPGs like Skyrim or the Witcher series, having NPCs which react emotionally to situations can create a more engrossing world.

Emotional Behaviour Trees

What?

Why?

How?

Priority Selector

What?

Why?

How?

Finite State Machines

How they work

Why not?

Problems

* GAMYGDALA appraisal engine
* Fuzzy state machines
* Memory Model

# Solution Design

Appendix for diagrams.

# Conclusion

# Bibliography

<https://reader.elsevier.com/reader/sd/pii/S1877050914001513?token=6B082959D37044EE738691E2494541D3A2580842F2497E429B8A0B092F941058E8D13FD9DEB5BEC91A05BBA0C59740F2&originRegion=eu-west-1&originCreation=20220311110803>

<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6374177>

<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.961.4359&rep=rep1&type=pdf>

<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6636311>

<https://eczasopisma.p.lodz.pl/JACS/article/view/93/95>

<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7873835>

# Appendix

Diagrams